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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,243	09/28/2001	Etsuo Kiuchi	P107242-0002	2638
4372	7590	09/23/2003	EXAMINER	
AREN'T FOX KINTNER PLOTKIN & KAHN 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			RACHUBA, MAURINA T	
		ART UNIT	PAPER NUMBER	
		3723	6	

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/926,243

Applicant(s)

KIUCHI ET AL.

Examiner

M Rachuba

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 01 July 2003.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 32-107 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 33,35,37,41,44,47,50,53,56 and 59 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 August 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_ .  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ .
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_ .  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_ .

Continuation of Disposition of Claims: Claims withdrawn from consideration are 32,34,36,38-40,42,43,45,46,48,49,51,52,54,55,57,58 and 60-107.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 32, 34, 36, 38-40, 42, 43, 45, 46, 48, 49, 51, 52, 54, 55, 57, and 58 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 41 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 41 recites the limitation "the polishing pad". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 33 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tanaka et al, 5,718,620. '620 discloses everything claimed, see figure 8, table 2a, with

the recesses/ribs 30 on the back side of the table, temperature adjusting fluid 14, the recesses acting as a flow path for the fluid.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 35, 37, 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al '620 in view of Jimbo et al, 6,475,068. '620 does not disclose that the polishing table is made of a material with a thermal expansion coefficient of  $5 \times 10^{-6}/^{\circ}\text{C}$  or less and corrosion resistance almost equal to that of stainless steel, that the material is ivar (stainless steel), or that the work holder is made of SiC and has recesses on a rear surface thereof (note that applicant has not defined which surface of the holder is a rear surface). '068, column 2, lines 47-56 teaches that

the polishing table is stainless steel, which would inherently have the same qualities as claimed. It would have been obvious to one of ordinary skill to have provided '620 with the table having the materials and qualities of '068, to prevent distortion of the table, and therefore the workpiece, during polishing. Further, '068 teaches forming the work holder of SiC (column 3, lines 7-13) with recesses in a rear surface thereof, see figure 1. It would have been obvious to one of ordinary skill to have made the work holder of SiC with recesses in the rear surface, as taught by '068, to increase thermal conductivity through the holder, see column 3, lines 14-27.

10. Claims 41 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al '620 in view of Morimoto et al 5,127,196. '620 does not disclose that the temperature changes of the table are controlled to be 10<sup>0</sup>C or less, or that the work holder has vacuum holes for adhering the work to the holder. '196, column 4, lines 15-30 and column 3, lines 49-51, teaches the claimed temperature range, and the claimed vacuum holes. It would have been obvious to one of ordinary skill to have provided '620 with the temperature range taught by '196, to prevent distortion of the table and therefore the work, and to have provided '620 with a holder with vacuum holes, to securely hold the work without allowing the work to slip.

11. Claims 44, 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al '620. '620 discloses the claimed invention except for the range of the rotational unevenness of the table, or the range of the rotational distortion of the table. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have keep the rotational unevenness of the table of '620 to less

than 1%, and the range of rotational distortion to less than 15 or 30 microns, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. In this case, the whole purpose of the invention of '620 is to prevent distortion of the table during polishing (rotating) of the table.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other similar devices are cited of interest.
13. Any inquiry concerning the content of this communication or earlier communications from the examiner should be directed to M. Rachuba whose telephone number is (703) 308-1361. The examiner can normally be reached on Monday through Friday from 8:30 AM to 4:00 PM. Any inquiries concerning other than the content of this and previous communications, such as missing references or filed papers not acknowledged, should be directed to the Customer Service Representative, Tech Center 3700, (703) 306-5648.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail, can be reached on (703) 308-2687. The fax phone number for this Group is (703) 872-9302.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306.

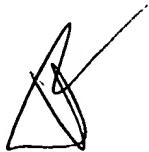
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.

M. RACHUBA  
PRIMARY PATENT EXAMINER  
ART UNIT 3723

mtr  
September 15, 2003

A handwritten signature consisting of a stylized 'M' and 'R' followed by a more fluid, cursive script.